NEWSLINE

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Senator's briefing on target

BOB HIRSCHFELD/NEWSLINE

U.S. Sen. Wayne Allard (center) got a close-up look at a tiny gold-tipped laser target inside the cavernous target bay of the National Ignition Facility. NIF project director Ed Moses helped guide the senator and entourage through the building last Friday, concluding an all-day tour of the Lab. Allard (R-Colo.) is a member of the Senate Armed Services Committee, where he chairs the Strategic Forces Subcommittee as well as the Senate's Renewable Energy and Energy Efficiency Caucus. One of NIF's missions is to explore the future of fusion energy.

Ever more powerful high brightness X-rays accelerate study of material structures

By Anne M. Stark
NEWSLINE STAFF WRITER

Thirty feet below Bldg. 194, there's a product generated on a 10-meter secret just waiting to be discovered.

And physicists and engineers working on the Picosecond Laser-Electron Inter-Action for the Dynamic Evaluation of Structures (aka PLEIADES) project are just the people to let you know about it.

The 100 MeV accelerator sitting under Bldg. 194 is now being used to create high brightness X-rays also known as Thomson X-rays by the PLEIADES group. Though they are not yet seeing their theoretical maximum, according to Aaron Tremaine, the project's Linear Accelerator (LINAC) team leader, the team is moving toward using the X-rays to study the structure of materials, such as bismuth, by the end of the year. When this facility comes to fruition, it will be the brightest 70 keV source, exceeding third generation light sources peak brilliances.

"We've created X-rays and plan to produce brighter X-rays here at the Linac," Tremaine said. "Besides having the brightest positron beam in the world, we're on our way to having a bright, tunable, hard X-ray source from 10 to 90 keV."

See **X-RAY,** *page 4*

UC President Atkinson responds to Sen. Domenici remarks on DOE contract

In a speech to Los Alamos employees Tuesday in honor of that laboratory's 60th anniversary, Sen. Pete Domenici said he would support an effort by the Energy secretary "to conduct a competition to solicit the very best proposals on how the laboratory could be managed."

In a statement released to the media late Tuesday, University of California President Richard Atkinson responded to Domenici's remarks.

"UC has tremendous respect for Senator Domenici's leadership and we appreciate his remarks. We agree with his criticisms of the management problems at Los Alamos, and we are gratified to receive his strong support for the corrective actions we have taken," Atkinson said.

"On the issue of competition, if Secretary Abraham's decision is to compete the LANL contract, then our instinct is to compete, and to compete hard," he said. "However, any final decision regarding UC's participation in such a process rests with the UC Board of Regents. Until the secretary announces his decision and the terms of any com-

See **UC,** *page 4*

Expo offers down-to-earth conservation ideas

By Anne M. Stark
NEWSLINE STAFF WRITER

Insulating your 1,500 square-foot attic could earn you $225 from Pacific Gas & Electric. Pedaling a bicycle for 30 seconds generates enough energy to run a typical television set for 24.5 seconds or operate a 500-watt hair dryer for 6.4 seconds.

These were just some of the facts one could pick up Wednesday while participating in the Lab's Earth Expo 2003.

With live big band swing music by the LLESA Dance Band in the background, employees swarmed around booths displaying information on everything from solar power to paper recycling.

After a one-year hiatus, Earth Expo 2003 — with the theme: "Reduce Your Impact on the Only World We've Got" — featured displays on energy efficiency, bicycle safety and water conservation, while the employee networking groups sold food.

JACQUELINE MCBRIDE/NEWSLINE

Blair Horst of UTEL prints out an energy output report as Simarvir Grewal rides the Lab's energy bike during Earth Expo.

Edward J. Gee and Associates, architects for the new Bldg. 140 facility under construction

See **EARTH,** *page 4*

New frontier in nanotechnology

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Disaster preparedness at home

— Page 3

work & life BALANCE *— Insert*

LAB COMMUNITY NEWS

Weekly Calendar

Technical Meeting Calendar
on page 3

Tuesday 29

The **LLESA Apple Computer Networking Group** will meet at 7 p.m. in the LLNL Discovery Center Press Room. Everyone with an interest in Apple brand and compatible computers is welcome to attend. Contact: Jim Branum, 2-6766.

Wednesday 30

The next session in the Benefits Office's **brown-bag series** on how to enhance your financial security by participating in the Tax-Deferred 403(b) will be held from 12:15- 1:15 p.m. in Bldg. 571, conference room 2301. Additional sessions will be held on the last working day of each month through October. Attendance is open and no pre-registration is required. Bring your lunch and your questions. For additional information about benefit services or events, please see the Website at www.llnl.gov/jobs/benefits.

• • •

Dell and GMR representatives will be in the South Cafeteria from 9-11:30 a.m. previewing the latest in Dell equipment offerings. A new printer line, announced earlier this month, a new PDA, and Latitude D-Series notebooks will be featured. Stop by to test-drive the new technology. LLNL contact: Candace Gittins, gittins1@llnl.gov.

Thursday 1

Employees and contractors are invited to participate in a special observance of the **National Day of Prayer** at noon in the Bldg. 543 auditorium. The National Day of Prayer is an annual event established by an act of Congress and signed into law in 1952 by President Truman. Contact: Harry Briley, 2-9238, or Brynn Bollinger at 2-6637.

Friday 2

A representative from **California Casualty Insurance** will be in the Benefits Office. Appointments are required and may be scheduled by calling 2-9955. California Casualty offers individual rates to Lab employees by payroll deduction for auto and homeowner/renter insurance. As with any employee-paid insurance coverage, employees are encouraged to comparison shop.

Up Coming

Employees who travel to Russia or host Russian-speaking visitors may want to sign up for one of the beginning (ED7802-Beg), intermediate (ED7802-INT) or advanced-level **Russian courses** (ED7802-ADV). These courses will provide the foundation of the Russian language by focusing on grammar and conversation. The instructors use a combination of textbooks, workbooks, audiotapes and videotapes to teach skills needed to carry on conversations (or just ask for directions) with Russian-speaking individuals. To register for the spring quarter, please refer to the on-line course catalog at https://www-ais.llnl.gov/llnl_only/docs/hr/catalog/. Contact: Marissa Mertes, 2-4842.

New 'paradigm' for nano-scale devices outlined

By Anne M. Stark
NEWSLINE STAFF WRITER

DDLS 2003

Richard Friend

Silicon is today's technology, but molecules are tomorrow's technology. That was the message Cavendish Professor of physics and Cambridge University Professor Richard Friend gave Tuesday as part of the Director's Distinguished Lecturer Series.

Friend, whose talk was entitled "Plastic Electronics," outlined how to create devices small enough to capture, break down and combine molecules into semiconductors.

"It creates a different paradigm on how we are going to produce devices," he said.

Friend has pioneered the study of organic polymers as semiconductors, and has demonstrated that these materials can be used in a wide range of semiconductor devices, including light-emitting diodes, transistors and photocells. By using a liquid solution, molecules can be broken down into protons and electrons that can be manipulated and positioned into semiconductor polymers.

In the late 1980s, Friend was a key researcher who helped create polymer light-emitting diodes that could excite materials electrically. This led to passive matrix display diodes that eventually made their way to the commercial market in modern MP3 players and, in 2002, the Phillips Executive Shaver.

"It was a simple way to display the high number of pixels," Friend said.

In the Phillips shaver, for example, the display screen shows how many minutes the shaver has left before recharging is required. Friend said newer technology often has to find a fit in the commercial market for it to be successful. In this instance, Phillips fit that niche.

For the past 10 years, Friend and his colleagues have been working toward creating polymers that that can create full color displays. The technology has moved into the Inkjet deposition process as shown in the CDT-Seiko-Epson AM-PLED display. Using a silicon back plate as a display — in devices such as a PDA or cell phone — requires fewer processes to get to that display than the standard crystal display.

"The current silicon semiconductor business is capital intensive," Friend said. "Molecule-based semiconductors will have a different cost structure with less capital outlay because there is less processing required to get to that display screen."

Friend's talk will be broadcast on Lab Channel 2 on Thursday at 10 a.m., noon, 2, 4 and 8 p.m. and on Friday, May 2, at 4 a.m.

Amigos Unidos celebrates Cinco de Mayo

The Amigos Unidos Hispanic Networking Group is sponsoring a Cinco de Mayo celebration on Thursday, from 11:30 a.m. to 1 p.m. in the pool picnic area that will include food, music and a presentation of high school scholarships.

Pre-sales are now underway for tamales and lunch plates. Tamales are $14 per dozen and $7.50 per half-dozen; and the lunch plate is $6 (includes choice of carnitas, chile colorado or one tamale). All sales benefit the group's scholarship fund.

Cinco de Mayo celebrates the Battle of Puebla, fought in 1862 when a small Mexican army successfully fought a larger, better equipped French force. May 5 was declared a Mexican national holiday in honor of the Battle of Puebla after the French were finally overthrown five years later.

To place an order for tamales or a lunch plate, contact: Yahel De La Cruz, 4-3507; Jessica Barraza, 2-6750; Xavier Cabrales, 2-7448; Michael T. Martin, 3-6580; Laura Martinez, 2-7037; Marta Holm, 2-8870; Marina Gonzalez, 3-7904; Marian Barraza, 3-7063; Irene Ortega, 2-6350; Rosa Yamamoto, 2-0454; Chris Ynzunza, 3-1848; Teresa Hauck, 2-8777; Patricia Martinez, 4-5227; Michele Cardenas, 3-2796; Maria Self, 4-9777; or David Castro, 3-7556.

Lab's revamped tour program has openings for part-time guides

Do you know someone interested in part-time or occasional work? Do they enjoy public speaking and meeting new people? If so, they might be an ideal tour guide candidate.

Public Affairs has revamped the tour program and is hosting tours of the Lab to the general public, school children and community organizations. Tour guides are hired through Johnson Controls and paid on a per-hour basis.

Tour guides will be trained extensively as part of the hiring process. On-going program updates and skill acquisition will also be offered.

To apply for this position, contact Gina Cadena at 960-0369, extension 367, or email your resume to cadena2@llnl.gov. You can also drop off your resume at the Johnson Controls office in Trailer 4180.

Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

Contacts:

Media & Communications manager: Lynda Seaver, 3-3103

Newsline editor: Don Johnston, 3-4902

Contributing writers: Elizabeth Campos Rajs, 4-5806; Bob Hirschfeld, 2-2379; David Schwoegler, 2-6900; Anne M. Stark, 2-9799; Stephen Wampler, 3-3107; Gordon Yano, 3-3117. For an extended list of Lab beats and contacts, see http://www.llnl.gov/llnl/06news/NewsMedia/contact.html

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Telephone: (925) 422-4599; Fax: (925) 422-9291
e-mail: newsline@llnl.gov or newsonline@llnl.gov
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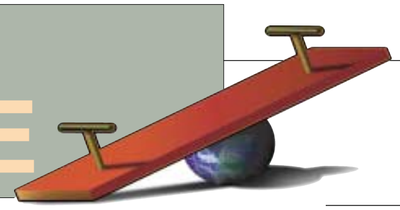
work & life BALANCE



A monthly supplement provided to employees as part of Survey Action Team Initiatives.

May 2003

JACQUELINE MCBRIDE/NEWSLINE

Breaking ground for the new Central Cafe were from left, Steve Hunt, Glenn Mara, Jan Tulk, Greg Lyons, Denise Robinson and Barbara Pulliam.

New Central Café breaks ground

A groundbreaking ceremony was held Wednesday morning to mark the start of construction of the new Central Café.

The new Central Café will be 25 percent larger than the current facility and will be capable of serving nearly double the number of daily lunches. The new café is scheduled to open in January 2004.

Jan Tulk, associate director for Administration and Human Resources, said the project to build the new café finally came to fruition thanks to a recommendation of the Survey Action Team charged with turning the results of the summer 2001 employees survey into initiatives.

"The new café will make life for employees at the Lab better," Tulk said. "The café will be a draw for employees across the Laboratory."

She credited Steve Hunt, Denise Robinson, and a large team from Plant Engineering, IBIS and Procurement departments working jointly with local NNSA counterparts to make this project a reality.

Noting that the groundbreaking capped a decade long effort to build the new Central Café, Hunt said: "This is a great day for us."

The new building, which will be 16,000 square feet, will be located east of

CAFÉ, See WORK LIFE page 4

URP Sabbatical Program offers win-win solutions for visiting professors

By Elizabeth Rajs
Newsline staff writer

Since last September, University of San Francisco computer science professor Peter Pacheco has been on sabbatical leave at the Lab, conducting research on how to simulate the neural workings of the brain on a computer.

It is work he had already started at USF, but he has made significant progress in the last eight months, thanks to his leave at the Lab. While the ability to access computers more powerful than those at his university has been a great benefit, interaction with Lab computer scientists has proven to be an equally important aspect of his sabbatical, he said.

"It has been great. The computing facilities are just wonderful. But even better are the people," Pacheco said. "I can call someone or send an email and they find time to meet with me. That's not something I would have been able to do without being here. If I could, I would come back a second year, but I have to go back to teaching."

Pacheco is one of eight university professors currently working at the Lab as part of the University Relations Program's Sabbatical Program. It was started two years ago as a way to attract talented professors from top-ranked universities to spend their sabbatical leave at the Lab, said Paul Dickinson, who manages the program.

A goal of the program was to bring unique scientific and engineering expertise into the Lab as well as to establish new and continuing relationships for the future recruitment of students and postdocs, he said. In turn, the visiting faculty have the opportunity to conduct cutting-edge research in the fields of their choice, with access to the Lab's computing and specialized lab facilities and field equipment.

It has proven to be a highly successful

SABBATICAL, See WORK LIFE page 4

Online course offers first aid, CPR training for employees

For three weeks starting Monday, the Laboratory is offering the first 300 employees and/or family members who sign on, the opportunity to take "Basic First Aid and CPR Online Training" free of charge.

The interactive course is one of the most popular offered by the National Safety Council (NSC). Its purpose is to show how to handle emergencies until professional help arrives. The Laboratory arranged to offer the course as part of its on-going safety awareness program and its themes for April and May —Emergency Preparedness, and Water and Summer Safety.

"We are always looking for new ways to promote health and safety on and off the job," said Den Fisher, associate director for Safety, Security and Environmental Protection. "Offering this course is an example. It not only raises people's safety awareness by providing an interactive activity, it gives employees and families guidance on how to be better prepared for dealing with emergencies."

The two-hour program offers the basics of emergency care and includes the latest guidelines for CPR and emergency cardiac care. According to the NSC, a range of common emergencies is addressed including choking, bleeding and heart attack. A complete list of course contents is included in the accompanying sidebar *(See Insert, page 4)*.

The online program teaches the knowledge portion of first aid and CPR. There is no hands-on skill training. To aid learning, the program uses interactive animations, narration, realistic sound effects, video clips and real-world simulation exercises. Testing at the end of the session allows students to chart their own progress and level of knowledge.

Online CPR, first aid training,

—see page 4

An important aspect of the course is its flexibility. People can learn at their own pace, go back if they need more help, and stop and restart the program when they have more time. The program will be available 24 hours a day, seven days a week. People can access it from the Laboratory or from home. Directions on how to do this are included in the sidebar.

"This basic course is being offered as a convenience to employees," Fisher said. "I encourage people with little or no first aid training to take it. They will surely gain some insights to dealing with accidents that may prove invaluable one day."

Fisher stressed that taking this course is strictly voluntary. He added that the course does not fulfill any Laboratory Institutional Training Requirement, nor will course completion be entered into LTRAIN. Also, the NSC explains that though participants will receive a notice of completion when finishing the course, they will not receive a certification. This is because the course does not include any hands-on skills training. ◆

AFTER HOURS AND in between

The month of May 2003

1 THURSDAY

Music, food, entertainment. . . Enjoy it all at the Cinco De Mayo celebration taking place from 11:30 a.m. to 1 p.m. on Thursday, May 1 in the picnic/pool area.

See a Tae Kwon Do demonstration at the May 15 Asian Pacific Heritage festival.

2 FRIDAY

Asian Pacific American Heritage Month will kick off with a talk by Charles Nainoa, executive director of the Polynesian Voyage Society, at 11:30 a.m. in the Bldg. 123 auditorium.

6 TUESDAY

Find out about your local community service groups at the Community Service Networking Exchange Club meeting, at noon in Bldg. 323, third floor conference room.

7 WEDNESDAY

Put your stamp on it at the LLESA rubber stamping networking group meeting at noon in Bldg. 571, room 1301.

8 THURSDAY

Mother's Day is almost here. You can conveniently purchase gifts at the Karats Jewelery station at Bldg. 415, room 103, 11 a.m. to 3 p.m.

Costco rep at LLESA, 10 a.m. to 2 p.m.

9 FRIDAY

Today is your last chance to purchase tickets at the Time Zone for LLESA's Family Picnic at Six Flags Marine World on May 17. Ticket price: $26.50, includes lunch.

11 SUNDAY

Mother's Day

12 MONDAY

The Piecemakers Networking Group will meet at noon in Bldg. 317, Teton Room.

13 TUESDAY

Children can be a challenge. The Parenting Class can help you meet that challenge and meets at noon in Bldg. 671, room 2000.

14 WEDNESDAY

Now on Wednesdays! On site massage is offered in Bldg. 571, room 108. Make your reservations by calling 4-5321.

15 THURSDAY

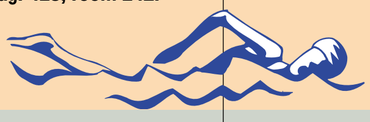
An Asian Pacific American Heritage Month festival will be held from 11:30 a.m. to 1:30 p.m. in the pool/lawn area. The festival will feature ethnic food and entertainment — a Lion dance and Hawaiian dance as well as Tae Kwon Do and other cultural exhibits.

17 SATURDAY

LLESA Family Picnic at Six Flags Marine World.

19 MONDAY

Get in the swim through LLESA's summer swim lessons. Registration begins at 8 a.m. in Bldg. 415, room 142.



20 TUESDAY

Water Aerobics/Session 2 begins today. Contact the LLESA office to register.

21 WEDNESDAY

Swim lesson registration continues through Aug. 6, daily 10 am. to 4:30 p.m. in Bldg. 415, room 142.

24 SATURDAY

LLESA Family Days at Great America: May 24, 25, 26, 30 and 31.

Magazine offers summer safety tips

Tips on making your summer a safe one will soon be arriving at your home via the pages of Family Safety & Health magazine. Publication is slated for May. The cover story in the magazine's Summer 2003 issue is "How to prevent a drowning." Other articles include, "BBQ safety: how to prevent a fire," "FAQs on Lyme disease," "Wilderness first aid," a health feature that explores "Five ways to keep safe this summer," and an article for motorists on "Sharing the road with bicyclists."

26 MONDAY

27 TUESDAY

The Parenting Class meets at noon in Bldg. 671, room 2000.

You don't have to travel far to enjoy the adventures of the LLNL Retirees' Travel Slide Group. They meet at 2 p.m. in the Livermore Library meeting room.

28 WEDNESDAY

Now on Wednesdays! On site massage is offered in Bldg. 571, room 108. Make your reservations by calling 4-5321.

30 FRIDAY

Discover how your pennies can add up at the 403(b) Benefits meeting at 12:15 p.m. in Bldg. 571, room 2301.

CAFÉ

Continued from Work Life, page 1

the library and adjacent to the groundwater retention basin. The dining area, which will provide seating for more than 400 people, will have panoramic views of the basin. There will be an additional 190 seats outdoors.

In addition, there will be an UNCLE Credit Union ATM located on the exterior of the facility, said Stu Jossey, Employee Services Division leader.

Also in attendance at the ceremony were Glenn Mara, deputy director for Operations, Robinson, Institutional Facilities manager, construction contractor Greg Lyons and representatives from the UNCLE Credit Union.

The new and improved Central Café will serve nearly double the number of daily lunches and will offer features such as increased parking and an UNCLE Credit Union ATM.

In planning the new building, designers took into account recommendations from the Employee Survey, which called for a larger facility that was more efficient and less congested.

"In the facility design, the focus was on internal traffic flows to minimize checkout delays and congestion points," said Michelle Quick, food service group leader.

"The new café will provide improvements in decor, view, operational efficiency, circulation efficiency and the overall dining atmosphere," she added.

The existing Central Café was built in 1979 as a temporary satellite facility to the West and South cafés, said project manager Barbara Pulliam. Until 1993, food was transported from the other two cafés to the Central Café.

The existing facility currently serves approximately 700 meals daily at lunch. The new café will have the capability of serving 1,300 lunches daily. ◆

SABBATICAL

Continued from Work Life , page 1

model, he said. All told, 16 university professors and 34 of their students and postdocs have worked in seven directorates at the Lab. The faculty has come to the Lab from universities throughout the United States as well as France, Italy, The Netherlands and Japan.

"The Lab program directorates have been extremely pleased with the technical quality of the faculty and student teams that the sabbatical program has brought them," Dickinson noted. "In many cases, important scientific contributions have been made and in most cases, continuing collaborations were established. This has also proven to be a very cost effective opportunity for the host porgrams."

Applications for FY 2003 – 2004 are due Thursday, May 1. Dickinson encourages Lab employees to invite their university collaborators, or faculty at universities where they wish to establish collaborations, to apply. The applications are evaluated and ranked by a Labwide review committee representing all directorates.

Lab computer scientist Pat Miller, who hosted Pacheco, said he benefited greatly from working alongside a university professor who has written a book on parallel programming.

"It's been interesting for me because inside the gates is so insular. It's been wonderful having someone with a fresh perspective and different ideas," Miller said. "It's helped me a lot. I hope to keep our collaboration going."

Richard Martin (center), a professor at the University of Illinois at Urbana-Champaign, with two of his students, Dyutiman Das (left) and Jordan Vincent (right).

One of the first participants in the Lab sabbatical program was Richard Martin, a professor of physics at the University of Illinois at Urbana-Champaign. He described his one-year sabbatical at the Lab as "a stimulating, profitable and enjoyable experience."

During his sabbatical at the Lab, Martin completed a book with contributions from Lab staff, and participated in review panels for the Physics and Advanced Technologies Directorate and programs at the Materials Research Institute. Martin included four Ph.D students and a postdoc in his sabbatical program. As a result of his sabbatical, research collaborations continue between the Lab and the Physics Department at the University of Illinois at Urbana-Champaign, Dickinson said.

Another participant in the sabbatical program was James Carlson, associate professor of pathology at the UC Davis School of Medicine. During his three-month sabbatical, he was able to complete experiments using Lab equipment and scientific methods developed by Lab scientists.

As a result, he noted, he was able to help submit a National Institutes of Health grant application that will support a project to apply the multiplex immunoassay diagnostic system developed by the Lab to the clinical setting at UC Davis Medical Center.

"By finding ways to fund the application of new technology, the complex interactions that are needed to bring a technical idea from the drawing board at the Lab to a clinical setting will be greatly facilitated," Carlson noted. "I feel that my sabbatical experience has given me some excellent insight into the LLNL mission."

For more information on the Sabbatical Program, check the Web at: http://www.llnl.gov/urp/sabbatical.html or contact Paul Dickinson, 3-4855 or dickinson3@llnl.gov. ◆

First aid course available for three weeks

Laboratory employees and their families can take Basic First Aid and CPR Online Training for three weeks, starting Monday and running through May 18.

To take this course free of charge, do the following:

1. Go to this URL: http://www.safetycampus.com/livermore.cfm (the screen will say "Basic First Aid & CPR.")

2. Fill in the information required *(Note: You can use 7000 East Ave. for the address and 94551 for the zip code. You can use your Lab number for the telephone number.)*

3. Enter your email address and create a password. At the bottom of the page, click the Submit Information button.

4. Enter information on next screen (email address and password). This brings you to the start of the course. You will receive an email confirming your registration and password and explaining how to return to the course quickly after stopping.

The course covers the following:

- Early access to emergency medical services.
- The importance/requirements for early CPR.
- Stroke and heart attacks and the need for early defibrillation.
- Airway obstruction in conscious and unconscious adults, children, and infants.
- Bleeding and shock.
- Burns.
- Bone, joint and muscle injuries.
- Poisoning.
- Bites and stings.
- Heat and cold-related injuries. ◆

First Aid

STARTING MONDAY APRIL 28

Basic First Aid & CPR Online Training Course

Free for the first 300 employees and/or families who log on April 28 through May 18

Learn how to handle emergencies until professional help arrives

See article in the *Work & Life Balance* insert in this issue for complete details and instructions on how to access the course.

Sponsored by the Safety, Security and Environmental Protection Directorate

AROUND THE LAB

Prepare for disaster with a family plan

Earthquakes…fires…floods…a hazardous material spills — a disaster may strike quickly and without warning.

To prepare yourself and your family for coping with an emergency, create a family disaster plan.

First, learn what hazards exist in your community and how to prepare for each. Contact the local emergency management, civil defense office, or local Red Cross chapter for materials on creating a disaster plan.

Then meet with your family to discuss what you would do, as a group, in each situation. Post emergency phone numbers, select an out-of-state family contact, assemble disaster supply kits for each member of your household, and install smoke detectors in your home.

Finally, practice your family disaster plan so that everyone will remember what do if a disaster occurs.

• Teach your children to recognize danger signals. Make sure your children know what smoke detectors, fire alarms, and community warning systems (horns, sirens) sound like.

• Teach your children how and when to call 9-1-1 for help.

• Help your children memorize important information — the family name, address, and phone number. They should also know where to meet in case of an emergency and the name and phone number of the family contact. If your child is too young to memorize the information, prepare a small index card that lists emergency information to give to an adult or babysitter.

Editor's note: The above is extracted from "Helping Children Cope with Disaster," an article written by Kathleen Noonan of Health Services, for SSEP Safety Wise, a publication of the SSEP Directorate. The article was developed from material in a Federal Emergency Management Agency (FEMA) brochure, which can be found online (http://www.fema.gov/pdf/rrr/epc-all.pdf).

Asian Pacific American Heritage Month begins

Asian Pacific American Heritage Month will kick off with a talk by Charles Nainoa, executive director of the Polynesian Voyage Society, at 11:30 a.m. Friday, May 2, in the Bldg. 123 auditorium.

An Asian Pacific American Heritage Month festival will be held from 11:30 a.m. to 1:30 p.m. Thursday, May 15, in the pool/lawn area. The festival will feature ethnic food and entertainment — a Lion dance and Hawaiian dance as well as Tae Kwon Do and other cultural exhibits.

On Tuesday, May 20, Congressman Mike Honda will speak at noon in the Bldg. 543 auditorium.

Classified ads return next week

The *Newsline* classified ads will return next week. Ads submitted prior to Wednesday (April 23) of this week need to be resubmitted in order to appear in the Friday, May 2, edition of *Newsline*. See classified ads on the Web: https://www-ais.llnl.gov/newsline/ads/

Technical Meeting Calendar

Friday 25

PHYSICS & ADVANCED TECHNOLOGIES
"Ultrafast X-Rays: Production With Laser-Produced Plasmas and Application," by Antoine Rousse, LOA - ENSTA Laboratoire d'Optique Appliquee, France. 10 a.m., Bldg. 219, room 163 (badge required). Contact: Mark Lowry, 2-6160.

PHYSICS & ADVANCED TECHNOLOGIES
"Dust Enshrouded High-Redshift Galaxies and Gravitational Lensing," by Andrew W. Blain, Caltech. Noon, Bldg. 319, room 205 (badge required). Refreshments will be served. Contacts: Michael Gregg, 3-8946, or Sandra Maldonado, 3-0621.

CHEMISTRY & MATERIALS SCIENCE
"Deformation Micro-Mechanisms In Gamma-TiAl," by Patrick Veyssiere, LEM CNRS-ONERA, France. 3:30 p.m., Bldg. 235, Gold Room. Coffee and cookies will be served at 3:20 p.m. Contacts: Tom Felter, 2-8012, or Rebecca Browning, 2-5500.

CHEMISTRY & MATERIALS SCIENCE
"Materials and Nanoscience Research at the Australian National University: Applications from Optoelectronics to Medical Diagnosis," by James S. Williams, Australian National University, Canberra, Australia. 10 a.m., Bldg. 235, Gold Room. Coffee and cookies will be served at 9:50 a.m. Contact: Tom Felter, 2-8012, or Rebecca Browning, 2-5500.

Monday 28

PHYSICS & ADVANCED TECHNOLOGIES
"Identifying Jets with Photon-Hadron Angular Correlations at RHIC," by Mickey Chiu, Columbia University. 1:30 p.m., Bldg. 211, room 227 (badge required). Contacts: Ron Soltz, 3-2647, or Pat Smith, 2-0920.

Tuesday 29

PHYSICS & ADVANCED TECHNOLOGIES
"On Variations in the Peak Luminosity of Type Ia Supernovae," by Frank Timmes, University of Chicago.10:30 a.m., Bldg. 219, room 163 (badge required). Contacts: Rob Hoffman, 4-6411, or Pat Smith, 2-0920.

PHYSICS & ADVANCED TECHNOLOGIES
"Rapid Pressure Induced Solidification in Metals," by Mehul V. Patel. 1:30 p.m., Trailer 2128, room 1000 (uncleared area). Contact: Ron Soltz, 3-2647.

PHYSICS & ADVANCED TECHNOLOGIES
"Application of Inertial Fusion to Energy Production," by Wayne R. Meier. 2 p.m., Bldg. 2128, room 1000 (uncleared area). Contact: Alan J. Wootton, 2-6533.

Wednesday 30

MATERIALS RESEARCH INSTITUTE
"Six Low-Strain ZincBlende Half Metals," by John Pask. 3:30 p.m., Bldg. 219, room 163 (uncleared area). Jody Reyes-Quick, reyesquick1@llnl.gov.

May 1

PHYSICS & ADVANCED TECHNOLOGIES
"Microscopic Description of Normal Parity Bands in Even-Even Heavy Deformed Nuclei," by Gabriela Popa, Rochester Institute of Technology. 3 p.m., Bldg. 211, room 227 (badge required). Contacts: Erich Ormand, 2-8194, or Pat Smith, 2-0920.

May 2

PHYSICS & ADVANCED TECHNOLOGIES
"The Importance of Resonant Interactions to Galaxy Evolution," by Martin D. Weinberg, University of Massachusetts. Noon, Bldg. 319, room 205 (badge required). Refreshments will be served. Contacts: Michael Gregg, 3-8946, or Sandra Maldonado, 3-0621.

May 6

CENTER FOR NONDESTRUCTIVE CHARACTERIZATION
"Sonic Infrared Imaging and its Applications," by Xiaoyan Han. 2 p.m., Bldg. 235, Gold Room. Contact Ann Tyler, tyler8@llnl.gov.

May 9

PHYSICS & ADVANCED TECHNOLOGIES
"Impact Delivery of Pre-Biotic Organic Matter to Planetary Surfaces," by Christopher D. Fassnacht, UC Davis. Noon, Bldg. 319, room 205 (badge required). Refreshments will be served. Contacts: Michael Gregg, 3-8946, or Sandra Maldonado, 3-0621.

May 12

PHYSICS & ADVANCED TECHNOLOGIES
"Centrality and Pseudorapidity Dependence of High-p_T Charged Hadron Production in Au+Au Collisions at sqrt(s_NN)=130 GeV," by Yu Chen, UCLA. 1:30 p.m., Bldg. 211, room 227 (badge required). Contacts: Ron Soltz, 3-2647, or Pat Smith, 2-0920.

May 16

PHYSICS & ADVANCED TECHNOLOGIES
"Gamma Ray Bursts: The Brightest Explosions in the Universe," by Shrinivas R. Kulkarni, California Institute of Technology. Noon, Bldg. 319, room 205 (uncleared area). Refreshments will be served. Contacts: Michael Gregg, 3-8946, or Sandra Maldonado, 3-0621.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.

Send your input to tmc-submit@llnl.gov. For information on electronic mail or the newsgroup llnl.meeting, contact the registrar at registrar@llnl.gov.

X-RAY

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Colliding an energetic electron beam with the high intensity FALCON laser, the Thomson X-rays are created where the laser and electron beam overlap. In January, the PLEIADES facility produced first light at 70 keV, an important milestone because it offered a new opportunity to develop electron beam driven, compact, tunable X-ray sources for critical applications such as NIF diagnostics and time-resolved material studies. Another attraction of these bursts of X-rays is their extremely short pulse lengths, from 1 picosecond to 100 femtoseconds, which is several orders of magnitude shorter than other X-rays light sources.

The next step is to increase the quality of the laser and electron beam to decrease the size of that overlap so more X-rays are produced. The smaller the overlap areas, the more X-rays are emitted. When more X-rays are emitted, the quality of diffraction experiments improves on a material after the X-rays have passed through it, allowing study of even denser materials such as uranium or plutonium.

Tremaine said once enough X-rays are produced, the group will add a shock to the equation. The eventual goal being to see how a sample responds under shock, and by delaying the X-rays, to see how the structure changes over time.

Developed to compliment the Stockpile Stewardship Program in addition to driving basic science, the PLEIADES project is in its third year as a Strategic Initiative funded by the Laboratory Directed Research and Development program.

The PLEIADES research team is made up of principle investigator Paul Springer, Gerry Anderson, Scott Anderson, Chris Barty, Shawn Betts, Rex Booth, Winthrop Brown, John Crane, Rick Cross, David Fittinghoff, David Gibson, Fred Hartemann, Jeremy Jacob, Lynn James, Jaroslav Kuba, Greg Lesage, Bill Patterson, Chris Robbins, Dennis Slaughter, Tremaine and Vince Tsai.

Tremaine said Thomson X-rays could eventually be used to probe the dynamics of a variety of physical, chemical or biological phenomena. The reaction of the materials under shock could then be probed by the high brightness Thomson X-rays.

"We want to eventually produce X-rays bright enough to perform single shot shock/diffraction experiments on very dense materials," Tremaine said.

JACQUELINE MCBRIDE/NEWSLINE

From left, Lab employee Jeremy Jacob, graduate student David Gibson and postdoc Winthrop Brown perform diagnostic checks on the 10-meter, 100 MeV accelerator sitting under Bldg. 194.

UC

Continued from page 1

petition, further comment on this subject would be inappropriate.

"The most critical issue is what is best for the nation's security, and UC is extremely proud of the contributions to the country and the world that have resulted from our 60 years of managing LANL in partnership with the DOE/NNSA. UC would like to see that relationship continue for another 60 years."

Director Michael Anastasio cautioned Wednesday that "While this is important information, remember these were only Sen. Domenici's comments. The Energy secretary is expected to make his decision regarding the contract by April 30. I will keep you informed as more information becomes available."

In a message to employees of Los Alamos and Lawrence Livermore national laboratories Tuesday, Atkinson said:

"I have been proud of the University of California under whose management the laboratory has largely flourished for 60 years…But, we all know that the present manner in which the laboratory is managed must change in ways that are inevitable…As a result, I have told Secretary Abraham that, at the end of the current University of California contract, I will support an effort by the secretary to conduct a competition to solicit the very best proposals on how the laboratory could be managed…and I will urge him to join me in guaranteeing that whatever management regime we develop, the University of California will be able to compete and compete well. It is my hope that the University will always command a large role at Los Alamos."

Domenici also stated that he believes the DOE would have to "prepare a unique competitive process for determining lab management that would retain all current employees — with the exception of the most senior officials — and, fully protect current compensation and retirement benefits."

The UC Board of Regents will discuss the issue at its next meeting in May.

"If the secretary's decision is to compete the Los Alamos contract, there of course will be many questions to answer and details to work through, including the cost of such a process and whether or not the Los Alamos decision has potential implications for the Lawrence Livermore National Laboratory contract," Atkinson said. "…As we have done throughout these past months, we will continue to keep lab employees informed of all important developments as we move through this process."

EARTH

Continued from page 1

showed how they have applied green building design to make an environmentally friendly "green" building and healthy and productive workplace within the limitations of very demanding function-driven specifications.

Architect Edward J. Gee described some of the building's many environmentally friendly features such as energy efficient design, daylighting, recycled content in building materials, rainwater capture and design for low maintenance. He pointed out that, contrary to conventional wisdom, it doesn't cost more to build and operate a healthy and environmentally friendly building, it just requires good and inovative design and a dedicated team.

At the Lab Management and Mechanical Utilities booth, employees could test their leg power by generating enough electricity to light up two light bulbs while riding the energy bike.

After 30 seconds, employees were handed an energy output results sheet that told the person how many calories were burned and how much energy was produced.

While employees were testing their skills at in energy efficiency, the Cyclotrons were busy fixing bicycles and performing safety checks.

At the PG&E booth, Jim Chace of Pacific Energy Center was busy explaining the benefits of installing Energy Star appliances and insulating homes. As recently approved by the Pubic Utilities Commission, PG&E is offering rebates to homeowners who are conserving energy by using things such as natural gas storage water heaters and installing whole house fans.

"The rebate is a good incentive to get people do these things but it's the savings over time that really counts," Chace said.

At the Keep California Beautiful booth, Paul Dickinson was busy collecting old personal cell phones to recycle through a Fountain Valley-based non-profit agency, Pledge-A-Phone.

Meanwhile at the Boise Cascade booth, Dave Martin was busy explaining how the company makes pencils that look and write like wooden lead pencils yet are made of a composite recycled material. He also showed off an array of paper products all made from recycled material. Employees flocked to his booth for the free plants he was doling out.

At the Spare the Air booth, sponsored by the Bay Area Air Quality Management District, handouts were available on how to keep air clean at home by using non-toxic cleaners such as vinegar and baking soda for household chores. Their handy carrying bags were also appreciated by employees eager to gather the wealth of informational handouts available.

Other Laboratory departments present and active at the Expo included the sponsor Environmental Protection Department's Pollution Prevention, Environmental Restoration, Community Relations and Chemtrack groups, the Lab's Fire Department, Fleet Management, Health Services and more.

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